

Application No. 09/743,818
Response to Office Action dated 08/19/2005
February 17, 2006

REMARKS

Claims 46, 48, 49, 52, 54, 57, and 90 – 114 are pending. Claims 47, 50, 51, 53, 55, 56, 58, 60, 61, 63 – 89 are cancelled in the present amendment, without prejudice to their being presented in a continuation or divisional application. Claims 68 – 89 were previously withdrawn as being drawn to non-elected subject matter.

New claims 90-114 are supported throughout the specification. See, e.g., Table I, Figure 2, page 11, lines 29-33; page 14, lines 5-6; page 15, lines 19-23; page 18, lines 14-17

No new matter is added by this amendment.

The objection to claims 60 and 61 is rendered moot in view of the cancellation thereof.

Claim Rejections – 35 USC §112

The examiner admits that the specification is enabling for a method for reducing the susceptibility of tropoelastin to thrombin, kallikrein, trypsin, plasmin, gelatinase B, or serum by mutating the sequences described in the specification, including Table 1.

Claims 46-58, 60-61 and 63-67 are rejected under 35 USC 112, first paragraph, as not being enabling for reducing the susceptibility of proteolysis by any protease comprising mutating any sequence in the tropoelastin so that the susceptibility of the tropoelastin to a serine protease or metalloproteinase is reduced.

Applicants submit that the specification provides at least 33 exemplary sequences which may be mutated to reduce the susceptibility of tropoelastin to proteolysis by serine protease. The specification provides at least 27 sequences which may be mutated to reduce the susceptibility of tropoelastin to proteolysis by metalloproteinase. Table 1 provides N-terminal sequences of peptide from proteolytic cleavage of tropoelastin with thrombin, kallikrein, trypsin, plasmin, gelatinase B and serum indicating sites that may be targeted to reduce susceptibility to proteolysis by these enzymes. These sites are also indicated in Figure 1.

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Accordingly, in light of what is disclosed in the specification, applicants submit that there would be no undue experimentation required by a person skilled in the art in order to carry out the full scope of the method of the invention.

Reconsideration and withdrawal of this rejection is requested.

No new matter is added by this amendment.

The Director of the U. S. Patent and Trademark Office is hereby authorized to charge any deficiency in any fees due with the filing of this paper to Deposit Account No. 08-3040.

Respectfully submitted,
HOWSON AND HOWSON
Attorneys for the Applicants

By 
Cathy A. Kodroff
Registration No. 33,980
Spring House Corporate Center
Box 457
Spring House, PA 19477
Phone: (215) 540-9210
Fax: (215) 540-5818